Network Solutions

2 The Borough, Aldreth, ELY, CB6 3PJ
Tel: +44 (0)1487 843763 or 0585 076713
e-mail: sales@planet.demon.co.uk
web: http://www.planet.demon.co.uk/

Dear Customer,

Advanced Level 4 Server upgrade for Acorn RISC OS computers

Thank you for purchasing this product. Please fill in the registration card and send it back to us. This will enable us to provide you with support and also send you any updates to the product.

Please also read the release note as this contains the latest information as well as hints, tips and any known bugs. This also gives advice on how to install the NetFS software in the client machines as this is not covered in the manager's guide.

A training course is being developed for this product, if you are interested in more information please contact us for further details.

If you experience any problems with this product we would be grateful if you will report any comments or observations to us as soon as possible giving as much information as possible with exact error messages, numbers and versions of software used. Using email is the best way to send this information to us. As I am sure you will appreciate this is a complex product and it relies on several software components that are not our responsibility but we will make every effort to resolve these problems if they arise and we will do our best to solve any problems as soon as we can. If a procedure can be followed to reproduce a fault then give full details. Again, email is the best way to report this information to us. Your feedback is very important to the product development and this will also help us to define how this and other products will develop in the future.

Please do not hesitate to contact us for further information by telephone, email, at the above address or visit our web site at http://www.planet.demon.co.uk/

Yours sincerely

Gary Stephenson

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RELEASE NOTE

This release note contains the latest information about the product. Please send any comments to us at e-mail: support@planet.demon.co.uk also more information can be found at our web site: http://www.planet.demon.co.uk/

Installing the upgrade

Please see the section **Installing the Upgrade** in the Network Manager's Guide starting on page 7. This gives details on how to upgrade from an existing Acorn Level 4 Fileserver.

Booting Acorn computers from the Server

If you are using an application server such as *ClassShare* copy the !NetFS application from the **Release Disc** into suitable place and add a line in the boot sequence to run it. For example:

```
*Run ClassFS::4.$.!Boot.!NetFS
```

Then restart your system and check your client machines have loaded the new version by pressing f12 and then *help NetFS. The version number should be 6.07 or later.

If you need to load the NetFS module using the **Advanced Level 4 Server** then please read the document **Booting Acorn Computers from the Advanced Level 4 Server** supplied with this product for further details. You must make sure the new NetFS software (version 6.07 or later) is loaded into the client machines. This can be done by using the existing NetFS in RISC OS to log on to the Advanced Server at power up as user BOOT and execute a !Armboot application that loads the new NetFS and then logs the machine on as BOOTUSER where the rest of the boot sequence can be found. It is recommended that the main boot application is stored in $.ArthurLib so that it can't be altered by unauthorised users. An example boot sequence is supplied on the **Support Disc**. This is stored as a SPARK archive file so you will need !Sparkplug or !SparkFS to decode it. Copy the directories into the exported directory on to the server's hard disc (normally called $.Export). The supplied !Server *usersfile* contains the users BOOT and BOOTUSER. Please contact us if you need any assistance with this.

Things to watch out for

Modules that interfere with NetFS

The following two modules **must not** be present in order for NetFS 6 to work correctly:

- NetUtils as supplied in the RISC OS 3.11 ROM and as a soft-loaded patch for other machines. This causes a 'channel' error when saving from !Draw and stops access to large files working.

- The Broadcast loader must not be active as this slows down network operations when using Ethernet.

These are now disabled by the !NetFS application that loads the new NetFS but make sure they are not loaded later in the boot sequence.

Cached data and changes to files

If any changes are made directly at the machine running !Server you will need to re-start !Server to make sure the client does not load the old copy of the file which the server may have cached. Making changes at the client machine is no problem but for large complex tasks it may be more convenient to do the work at the file server when it is not being used.

Hidden directories and files
If you need to use $.Arthurlib or $.Library then the directory will need to have public read permission set otherwise it will not be visible to normal users.
Make sure hidden directories do not have public read or write permission as the Locked attribute is no longer used to indicate hidden objects (see page 10 of the Network Manager's Guide).

DataPower by IOTA
At the moment DataPower uses the old Level 4 password file which will need to be copied into the new !Server directory. This has not yet been fully tested.
Running the DataPower server and Advanced Level 4 Server on a machine with 4 Mbytes or less is not recommended.

Intertalk by Acorn
We recommend that you run Intertalk on a different machine to !Server.

Know bugs or features

These are all the things we know about and are in the process of rectifying. A free update will be sent to you when these faults have been fixed.

!Server 2.09 (08-Jun-97)
Deep directory structures can sometime cause an error to be generated at the server causing it to stop until the error is cleared.

Occasionally the error 'Abort on data transfer' occurs when shutting down !Server.

NetFS 6.07 (10-June-97)
Saving files from !Draw with filenames longer than 10 characters fails. This also applies to any application that uses *create* and then *putbytes* when saving new files.

Support for multiple logon has been temporarily removed.

This version only supports up to 77 entries in a directory rather than 255.

This version will only work with a 32 bit file server. A 24/32 bit version is planned for the future. This will provide compatibility with MDFS fileservers.

!Manager 2.03 (20-May-97)
CSV files need to be saved to disc before importing. Dragging directly from !Edit does not work correctly.
If using a CSV file to update an exiting password file any blank fields will get filled in. ie: users with no password will end up with passwords!
The update and delete functions in the User URD manager do not work at all.
Occasionally the title bar fails to be redrawn after save.
There is a small memory leak when loading user files multiple times.
The formatting for the full info fileserver display is incorrect.
It is possible to copy a group into a sub-group therefore losing the access to this group from the filer display.
Copying users between two different fileservers fails.
The toolbar buttons vary in size.
It is not possible to make changes to a selection of users recursively (yet).
You are allowed to quit !Manager without warning if there is unsaved data in a modified user file. This will only affect changes made directly to the user file rather than across the network.

BOOTING ACORN COMPUTERS FROM THE ADVANCED LEVEL 4 SERVER

Introduction

Networked computers require access to resources that they do not store locally.
These resources can be provided by the fileserver and have to be set up in the client machines boot sequence. The **Support Disc** supplied with the Advanced Level 4 Server contains an example boot structure to help get your network system going. The directories need to be copied into your server's exported directory (normally $.Export). Then you need to make sure the access permissions are set as follows:

```
$.ArthurLib                                          /r
$.ArthurLib.!Boot.!Scrap.ScrapDirs                   /wr
$.ArthurLib.!ShareBoot.Resources.!Scrap.ScrapDirs    /wr
```

Hopefully this should get most systems working without too much difficulty but if you require assistance then please contact our support team. It is assumed you have working network and understand the basic principles. This document describes what the boot sequence does.

Different network configurations

There are a large number of variations used in schools. These include different types of Acorn machines, versions of operating systems and network software, configurations and setups of boot sequences. Some have local hard discs and some software in firmware. There are also a number of application servers such as Application Accelerator, AppFS, ClassShare, NetGain and Access/Access+. This makes it very difficult to sort out problems and to provide boot sequences that suit every situation, therefore these examples should provide a good starting point.

Versions of the RISC OS operating system

The boot sequences supplied on the **Support Disc** currently support the following versions of RISC OS:

- 3.10
- 3.11
- 3.60

Normally RISC OS 3.50 machines have a local hard disc which they boot from.
A new **!ShareBoot** for network 3.7 clients is being developed by Acorn. Versions of RISC OS earlier than 3.10 are not supported.

Types of Ethernet cards

This boot sequence has been tested with the following manufacturers Ethernet cards:

- i-cubed
- Acorn (ANT and i-cubed cards)
- Oak Solutions (supported by us)
- ANT/Atomwide

Versions of network software

We strongly recommend that all the Acorn machines on your network are running the latest Acorn DCI 4 protocol stack. Please contact your supplier for details.

Configuration of the client machines

In order for the client machines to start up correctly a number of **CMOS RAM Configuration** options need to be altered from the 'factory' defaults. An example *obey* file is provided on the **Support Disc**. The following `*configure` options are set by this file:

`FileSystem Net`	The file system used to boot from
`Boot`	Try to log on as BOOT and run !ArmBoot
`BootNet On`	Start up the Acorn Net software (Sometimes called AUN)
`Lib 1`	NetFS then uses ArthurLib instead of Library

In addition the following options may need to be changed if your servers have different station numbers:

FS 254	The default fileserver the client machine will use
PS 235	The default printer server the client machine will use

We strongly recommend the use of the i-cubed **CMOS Lock** facility if you have i-cubed cards as this will prevent unauthorised changes to the CMOS RAM configuration. Please contact i-cubed for further details.

Advanced Level 4 Server boot sequence example

When the client machines are configured correctly the following sequence of events should take place:

1. The machine powers up and load the network software from the network card.
2. **NetFS** logs on to the configured file server as a user called BOOT.
3. If the user's boot option set to RUN, **NetFS** then runs **!ArmBoot.**
4. **!ArmBoot** in the URD of BOOT then runs a utility that kills NetUtils and BroadcastLoader. It then loads the new **NetFS** module and logs back on as BootUser.
5. The new **NetFS** then runs **!ArmBoot** (which is in **$.ArthurLib** to stop unauthorised access).
6. This !ArmBoot is an obey file which then runs **$.ArthurLib.!Boot** for clients fitted with less then RISC OS 3.50 and **$.Arthurlib.!ShareBoot** for clients fitted with RISC OS 3.6 and above.
7. These boot applications start by running the !Run file and then perform various other functions such as running the !Scrap application.

Resources required by client machines

The mandatory resources required by client machines are:

- !Scrap To save temporary data.
- !System Some additional modules required are stored here.
- !Fonts Extra fonts in addition to the ones in ROM.

It is recommended that only one copy of these resources is available to the client machines as this makes management easier and takes up less space on the hard disc(s). However in order to simplify the booting of machines fitted with RISC OS 3.1 a simple **!Boot** application is provided in **ArthurLib**. This allows these machines to boot up in less time than if they were running the version primarily intended for RISC OS 3.60 clients. This does mean there are two separate main boot applications, !System, !Scrap and !Fonts, which as long as they are maintained correctly should not present a major problem. At this time we feel the advantage of faster start up outweighs the added facilities in the more advanced boot sequence but if this is required it can be used by changing the **$.ArthurLib.!ArmBoot** obey file.

Individual customisation

Once the machine has booted a user may log on to their personal area. If their boot option is set this may then execute a **!ArmBoot** within the user's user root directory. For example, this could do additional jobs such as place items on the pinboard or run a menu system.